



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

11/672,631

02/08/2007

James Wlos

6103

1154

31424 7590 10/17/2007
BABCOCK IP, PLLC
P.O. BOX 488
4934 WILDWOOD DRIVE
BRIDGMAN, MI 49106

EXAMINER

GIRARDI, VANESSA MARY

ART UNIT

PAPER NUMBER

2833

MAIL DATE

DELIVERY MODE

10/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 11/672,631	Applicant(s) WLOS, JAMES	
	Examiner Vanessa Girardi	Art Unit 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb. 8-Mar. 19 2007 (Initial App).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>Feb. 8, 2007</u> . | 6) <input type="checkbox"/> Other: _____ |

Priority

1. The Application Data Sheets filed on the 8th and 9th of February 2007 both indicate "Yes" for Foreign Priority Claimed, yet there is no further information pertaining to the Application number, Country or filing date.

Claim objection

2. Claim 21 should be labeled (New).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

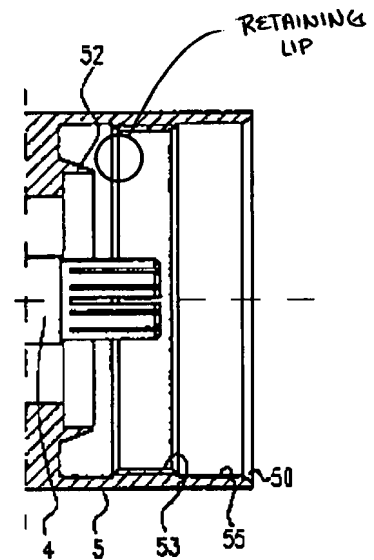
3. Claims 1, 2, 4, 5, 7-9 and 21 are rejected under 35 U.S.C. §102(b) as being anticipated by Strasser et al. (US 6,217,384).

With respect to claims 1 and 4; Strasser et al. discloses an annular corrugated solid outer conductor coaxial cable electrical connector, with an interface end and a cable end [FIG. 4], comprising: an integral spring finger nut **6, 7** telescopically coupled via threads **72** to the cable end of a body **5**; a nut bore in the spring finger nut **6, 7** dimensioned to receive the outer conductor **3**; a plurality of spring fingers **62** around the periphery of the interface end of the nut bore [FIG. 1], projecting towards the interface end, the spring fingers **62** provided with an inward projecting bead **63** at the interface end; the interface end of the spring fingers **62** deflectable into an annular groove between the spring fingers **62** and an outer diameter of the spring finger nut [ADJACENT **71**]; the annular groove open to the interface end; and extends to the cable end of the spring fingers [FIG. 1].

The term "*integral*" is taken to mean formed as a unit with another part whereupon it is essential to completeness.

Art Unit: 2833

With respect to claim 2; Strasser et al. discloses the body 5 has a body bore with an integral angled annular flare seat 52 facing the cable end [FIG. 1]; the flare seat 52 adjacent a retaining lip [AS ILLUSTRATED], the retaining lip projecting inward [FIG. 2] proximate an outer diameter of the spring fingers [AT 63] preventing deflection of the spring fingers into the annular groove when the telescopic coupling of the spring finger nut 6, 7 and the body 5 toward one another overlaps the retaining lip and the interface end of the spring fingers [FIG. 4].



With respect to claim 5; Strasser et al. discloses an electrical connector [FIG. 4], with an interface end and a cable end [AT 7], for annular corrugated solid outer conductor coaxial cable 3, comprising: an integral body 5 with an inner diameter thread 53 around a cable end of a body bore; the body bore having an annular outer conductor groove formed between an angled annular flare seat 52 and a retaining lip [ILLUSTRATED IN CLAIM 2] projecting inward from the interface end of the inner diameter thread 53; the annular outer conductor groove open to the cable end [FIG. 1]; and a spring finger nut 6, 7 with an outer diameter thread 72 threadable upon the inner diameter thread 53; the spring finger nut 6, 7 provided with a nut bore dimensioned to receive the outer conductor 3 and a plurality of spring fingers 62 around the periphery of the nut bore, the spring fingers 62 extending towards the interface end [FIG. 4]; the spring fingers 62 provided with an inward projecting bead 63 at the interface end; the interface end of the spring fingers 62 deflectable into an annular groove open to the interface end, between the spring fingers 62 and the inner diameter thread 53, until the inner diameter thread 53 is advanced along the outer diameter thread 72 and the retaining lip overlaps the interface end of the spring fingers [FIG. 4].

With respect to claim 7; Strasser et al. discloses the annular groove [WHICH IS FORMED BETWEEN THE PORTION OF THE SPRING FINGER NUT WHICH CARRIES **71**, **72** AND THE SPRING FINGERS **62**] extends to a cable end of the spring fingers [FIG. 1].

With respect to claims 8 and 9; Strasser et al. discloses the interface end of the outer diameter thread **72** is located proximate the interface end of the spring finger nut [FIG. 1]; as well as a longitudinal position proximate the inward projecting bead(s) **63**.

With respect to claim 21; Strasser et al. discloses [FIG. 4] a center pin coaxially supported within a bore of the interface by an insulator, the center pin having a spring basket at the cable end.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over Strasser et al. (US 6,217,384) in view of Stevens et al. (US 3,634,815). Strasser et al. shows a coaxial cable connector having a spring finger nut. However Strasser et al. does not show the type of material which forms the spring finger nut.

Stevens et al. shows a coaxial cable connector **10** comprising resilient means **32** which is analogous to the spring finger nut and is formed from a polymeric material [COL. 2, LINES 35-37].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the spring finger nut of Strasser et al. from a polymeric material

Art Unit: 2833

as taught by Stevens et al. [COL. 1, LINES 39-41] for the purpose providing a coaxial connector assembly having improved gripping characteristics with respect to the coaxial cable connected thereto.

5. Claim 6 is rejected under 35 U.S.C. §103(a) as being unpatentable over Strasser et al. (US 6,217,384). Strasser et al. shows an electrical connector [FIG. 4] comprising a spring finger nut 6, 7 provided with a nut bore dimensioned to receive the outer conductor 3 and a plurality of spring fingers 62 around the periphery of the nut bore.

Strasser et al. shows the claimed invention except for the plurality of spring fingers exceeding four. It would have been obvious to one having ordinary skill in the art at the time the invention was made to limit the spring fingers to a maximum of four, since it has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art. In re Karlson, 136 USPQ 184.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to reduce the number of spring fingers on the spring finger nut of Strasser et al. thereby simplifying the electrical connector without compromising its performance wherein the act of simplifying that portion of the electrical connector will translate to simplifying its production which will tend to bring production costs down.

The same reasoning applied in the rejection of apparatus claims 1, 3 and 5, *mutatis mutandis*, applies to the subject-matter of method claims 10 and 16, given the claimed apparatus is considered inseparable from the claimed method of forming the apparatus.

The same reasoning applied in the rejection of apparatus claims 1 and 2, *mutatis mutandis*, applies to the subject-matter of method claim 13, given the claimed apparatus is considered inseparable from the claimed method of forming the apparatus.

The same reasoning applied in the rejection of apparatus claims 1 and 4, *mutatis mutandis*, applies to the subject-matter of method claim 14, given the claimed apparatus is considered inseparable from the claimed method of forming the apparatus.

The same reasoning applied in the rejection of apparatus claims 5 and 6, *mutatis mutandis*, applies to the subject-matter of method claim 15, given the claimed apparatus is considered inseparable from the claimed method of forming the apparatus.

6. Claims 11, 12 and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Strasser et al. (US 6,217,384) and Stevens et al. (US 3,634,815) as applied to claims 10 and 16 above, and further in view of Koblitz (US 5,844,021). Strasser et al. as modified by Stevens et al. has been discussed above.

However neither Strasser et al. nor Stevens et al. show or teach the spring nut finger is formed by injection molding or that the polymeric material is polybutylene terephthalate.

Koblitz teaches the use of a material for use in electrical connectors which is amiable to inject-ability [COL. 2, LINES 30-33]; wherein the material is derived from the elastomeric thermoplastic polymers such as polybutylene [COL. 13, LINES 20-48].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the teachings of injection molding to manufacture the spring nut finger from an elastomeric thermoplastic polymers such as polybutylene as taught by Koblitz to further modify the electrical connector of Strasser et al. to produce the spring finger nut from a high quality, durable material that is sufficiently rigid to retain its general shape and dimension yet is sufficiently flexible to exhibit substantial recovery upon stretching and is easy to manufacture.

Art Unit: 2833

The same reasoning applied in the rejection of apparatus claims 8 and 9, *mutatis mutandis*, applies to the subject-matter of method claims 18 and 19, given the apparatus is considered inseparable from the method of forming the apparatus.

The same reasoning applied in the rejection of apparatus claims 1, 3, 5 and 6, *mutatis mutandis*, applies to the subject-matter of method claim 20, given the apparatus is considered inseparable from the method of forming the apparatus.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-21 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 7,275,957. Although the conflicting claims are not identical, they are not patentably distinct from each other because each of the claimed key structural attributes of the instant invention have analogous counterparts in the cited reference, for example:

INSTANT INVENTION	US PAT. 7,275,957
SPRING FINGER NUT	SPRING FINGER RING
INWARD PROJECTING BEAD	INWARD PROJECTING BEAD
ANNULAR GROOVE	IMPLIED BY THE INTERFERENCE FIT OF THE SPRING FINGER RING WITH THE BODY WHEREIN THE OD OF THE PERIPHERAL ARRAY OF SPRING FINGERS IS LESS THAN THE RING AS SHOWN IN FIG. 5.

Art Unit: 2833

ANGLED ANNULAR FLARE SEAT	FLARE SEAT
RETAINING LIP	RETAINING LIP
ANNULAR OUTER CONDUCTOR GROOVE	OUTER CONDUCTOR GROOVE

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vanessa Girardi: Telephone number (571) 272-5924.

Monday – Thursday 7 a.m. to 5:30 p.m. (EST)

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 ext 33.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VG

Art Unit 2833
October 3, 2007



RENEE LUEBKE
PRIMARY EXAMINER